

## **Examining Contexts of Reception for Newcomer Students**

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**Abstract**

The educational opportunities, experiences, and outcomes of immigrant students are shaped in critical ways by the districts and schools they attend. Using the framework of immigrant contexts of reception to guide our analysis, and drawing on administrative data from two states, we examine contexts of reception for newcomers as a whole and for newcomer subgroups. Specifically, we explore distributional, demographic, and academic outcome measures for newcomer students' districts and schools. Findings suggest contexts of reception for newcomers vary widely. We discuss the implications of these findings for educational leaders serving newcomers in different contexts.

## Introduction

Educators and policymakers are increasingly recognizing the great diversity among students who are classified as English learners (ELs). One important subgroup of ELs that has received attention in recent years is newcomer students. We define newcomers as students who are classified as ELs and also meet the federal definition for immigrant students—individuals between the ages of 3-21, born outside the United States, and enrolled in U.S. schools for fewer than three academic years (Every Student Succeeds Act [ESSA], 2015).<sup>1</sup> A majority of the nearly five million students classified as ELs are U.S.-born (National Academies of Sciences, Engineering, and Medicine [NASEM], 2017). However, foreign-born students still comprise a significant segment of the EL population, ranging from approximately 10% at age five to approximately 50% at age 18 (NASEM, 2017). Newcomer students vary widely across many dimensions, including their pre-migration experiences and the post-migration contexts they encounter. Educational leaders at the state, district, and school levels have many questions about how best to serve newcomer students (Calderón & Slakk, 2019).

Growing attention to newcomer students has led to qualitative research about this group's experiences and needs, as well as research exploring programs designed for newcomer students (e.g., DeCapua & Marshall, 2010; Hersi & Watkinson, 2012; Short, 2002). For example, researchers have worked to identify characteristics of schools that successfully serve newcomer students, including analyzing specialized newcomer student programs and programs which support newcomers within general education contexts and classes (e.g. Bajaj & Suresh, 2018; Crawford & Dorner, 2019; Short, 2002; Santos et al., 2018). Some of this research has explored

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<sup>1</sup> In other work, we have referred to this group of EL-classified students who are between the ages of 3-21, were born outside the U.S., and have been enrolled in U.S. schools for fewer than three academic years, as recently-arrived immigrant English learners (RAIELs; Umansky, Hopkins, Dabach, Porter, Thompson, & Pompa, 2018). For clearer alignment with other literature, including other pieces in this special issue, we use the term newcomer here.

attributes of effective educational leadership to support newcomer students. In addition to considerations of appropriate program models, researchers have highlighted how school leaders can foster both organizational and instructional capacity for effectively educating newcomer students (e.g., Calderón & Slakk, 2019; Lowenhaupt & Reeves, 2015). Other research has explored the importance of mission-driven, culturally responsive leadership for creating schools in which newcomer students thrive (e.g., Crawford & Dorner, 2019; Santos et al., 2018, Scanlan & López, 2012; Theoharis & O'Toole, 2011).

Meanwhile, research from sociology and economics has leveraged national datasets to describe changing immigration patterns and investigate outcomes for immigrant children (e.g., Massey, 2008; Portes & Rumbaut 2001; Suárez-Orozco & Suárez-Orozco, 2009). A key strand of this research has focused on how characteristics of host communities, referred to as *contexts of reception*, shape immigrant outcomes. Contexts of reception include the economic, social, political, and legal aspects of host communities (Portes & Rumbaut 2006), aspects that manifest at different nested ecological levels (Bronfenbrenner, 1994). In recent years, researchers have argued that educational institutions are an important element of contexts of reception for immigrant families. Studies have examined how a wide variety of policies shape contexts of reception for immigrant students, impacting their opportunities and outcomes. These include federal law regarding children's right to education regardless of documentation status (Gonzales, 2009), state-level policies about the extent to which immigrants are included in state welfare programs (Filindra, Blanding, & Garcia Coll, 2011), and school-level policies about how teachers are assigned to EL-focused courses (Dabach, 2015).

Until recently, newcomer students were difficult or impossible to identify in administrative data from state education agencies (Umansky et al., 2018). Changes in federal

reporting requirements and state data collection systems have led to advances in this area, facilitating large-scale research that examines critical questions about newcomer education. Specifically, student-level administrative data now allows for a close examination of how newcomers are distributed across districts and schools, and the characteristics of the districts and schools serving newcomers, enabling us to better understand the contexts of reception for these students. We ask:

- 1) Examining newcomers as a whole, what contexts of reception do newcomer students encounter, as evidenced by distributional, demographic, and academic features of newcomer students' districts and schools?
- 2) How do these contexts of reception differ for unique subgroups of newcomer students?

Understanding the answers to these questions can inform educational leaders' planning and choices about resource allocation and organizational and instructional capacity development. Additionally, an awareness of newcomer student distribution across districts and schools may motivate leaders to reflect on their own unique contexts and the policies that implicitly or explicitly influence newcomer student distribution, as well as how those policies might impact students' access to supports and opportunities.

We first discuss prior literature about contexts of reception for immigrants generally and immigrant students in particular, documenting how our study adds to this literature. We explore how newcomer distribution constitutes a key element of contexts of reception, focusing on how analyses of newcomer distribution across districts and schools fit within the broader literature on segregation and integration within educational settings. We also describe how demographic and academic features of newcomer students' districts and schools contribute to shaping contexts of

reception. We then provide background information about characteristics of newcomer students in our two states, both by state and for particular newcomer subgroups. We describe our data and methods, present findings, discuss implications for educational leaders and for policy, and reflect on limitations and directions for future work.

### **Newcomer Contexts of Reception**

Much immigration research has focused on how characteristics of immigrants are associated with later outcomes (Bankston & Zhou, 2002; Cortes, 2004; Feliciano, 2006; Fuligni, Witkow & Garcia, 2005). However, in recent decades, immigration scholars have devoted increasing attention to characteristics of the host communities where immigrants arrive. As noted above, these *contexts of reception* include the economic, social, political, and legal aspects of host communities, which together impact immigrants' outcomes. As Portes & Böröcz (1989) describe, "The stance of host governments ..., employers, the surrounding native population and the characteristics of the pre-existing ethnic community, if any, are important aspects of the situation confronting new immigrants" (p. 618).

The characteristics of districts and schools shape contexts of reception for immigrant children, with factors at the federal, state, district, school, and classroom levels impacting newcomer students' opportunities and outcomes. For example, prior literature examines how the number of teachers with credentials for teaching ELs varies in traditional immigrant destination states compared to new immigrant destination states. These teacher labor market differences influence the characteristics, experience level, and skills of teachers that immigrant students are exposed to (Arias & Markos, 2016). State policy, such as the four-hour daily English language development requirement for ELs in Arizona, can also dramatically shape newcomers' exposure

to academic content and opportunities for peer interaction (Lillie, Markos, Arias, & Wiley, 2012).

Meanwhile, at the school level, policies and practices impact students' contextual environments, further shaping their experiences, opportunities, and outcomes. Estrada (2014), for example, documented how course placement policies in middle school often excluded students at the early stages of English development (many of whom are newcomers) from core content area classes. Other work has examined teacher assignment practices (Dabach, 2015) and the form and content of professional development (Lowenhaupt & Reeves, 2017), considering how these shape newcomers' educational environments. Further, school leaders can play an active role in shaping teachers' instructional practices for newcomers by encouraging certain approaches such as heterogeneous language proficiency grouping (Stritikus & Nguyen, 2010), by structuring (or not structuring) opportunities for teacher collaboration across subjects (Hopkins, Lowenhaupt & Sweet, 2016), or by shaping extra-curricular opportunities for newcomers and ELs (Carhill-Poza, 2017). School leaders can also play a key role in engaging newcomer families through a number of channels, such as developing culturally-responsive events, creating communicative bridges with families, and supporting a school-wide recognition of the unique assets newcomer students and their families bring (DeMatthews & Izquierdo, 2018; Dryden-Peterson, 2018).

Thus, a wide range of state, local, district, and school factors shape newcomer students' opportunities and outcomes (Abrego, 2006; Stepick & Stepick, 2009; Zhou, 2009). In this study, we sought to describe and identify distributional, demographic, and academic factors in the districts and schools that newcomer students attended. Below, we argue that these contextual features shape the educational environment and are thus important for understanding newcomers' contexts of reception. We start by discussing how newcomers' distribution across

and within districts and schools shape contexts of reception; then, we look at other features of newcomers' educational contexts, including linguistic concentration, EL concentration, school-level economic disadvantage, school-level academic performance, and district size.

### **Newcomer Student Distribution as a Factor Shaping Contexts of Reception**

The distribution of newcomers across and within districts and schools shapes students' peer groups, their linguistic exposure, and likely their services and academic exposure. In this section, we briefly describe the historical context regarding school segregation and related research to motivate why newcomer student distribution is an important factor shaping contexts of reception. This idea builds from a growing recognition that school leaders can influence newcomer students' experiences through decisions to either cluster students and facilitate targeted services, or promote full integration into the mainstream school environment (Callahan, Wilkinson & Muller, 2008; Cosentino de Cohen & Clewell, 2007; Short & Boyson, 2012).

U.S. schools have a long, pernicious history of segregation on the basis of race and national origin (Kurlaender & Yun, 2005; Reardon, Yun & Kurlaender, 2006). While the landmark *Brown v. Board of Education* (1954) ruling is the most well-known school segregation case, other court cases have focused on equitable schooling access for a variety of student groups, including Latinx students. Preceding *Brown v. Board* (1954), the *Mendez v. Westminster* (1947) decision ruled that Mexican-American students were being unfairly, and unconstitutionally, segregated into specific schools (Arias, 2007). Coming after both *Mendez* and *Brown*, the *Keyes v. School District No. 1*. (1973) case extended the rulings born out of *Brown v. Board* (1954) to Latinx students nationally, although without the same widespread policy reaction that was seen after *Brown* (Arias, 2007).



These policies demonstrate a *de jure* approach to school desegregation in the United States. However, research continues to document ongoing *de facto* segregation, in which students are often unequally distributed across schools in relation to income (Owens, Reardon & Jencks, 2016), home language (Gándara & Orfield, 2012), and race and ethnicity (Orfield, Siegel-Hawley & Kucsera, 2014). With regard to immigrant and EL students, there is evidence that students in these categories are often clustered in under-resourced schools (Consentino de Cohen & Clewell, 2007; Gándara, Rumberger, Maxwell-Jolly, & Callahan, 2003; Ruiz-Valesco & Fix, 2000). In addition, research has found that EL students and children born to immigrant parents are more likely to attend schools with higher proportions of EL and immigrant students (Consentino de Cohen & Clewell, 2007; Fix & Passel, 2003).

While research points to these overarching patterns of EL segregation into under-resourced schools, many districts also purposefully cluster newcomers, or subgroups of newcomers, in particular schools in order to concentrate services, resources, and programs for these students. For example, clustering newcomers or newcomer subgroups—such as students with interrupted formal education (SIFE) or refugee students—can allow districts to create newcomer programs, to staff schools or programs with bilingual or specially-trained teachers and administrators, to offer specific classes geared toward newcomers, to partner arriving students with a “buddy” who speaks their same language, or to purchase and provide training for teachers around specific curricula or materials for newcomers (Cosentino de Cohen et al., 2005; Dentler & Hafner, 1997; Francis, Rivera, Lesaux, Kieffer & Rivera, 2006; Short, 2002). As is explored elsewhere in this special issue, the separation of newcomers or newcomer subgroups into dense clusters can be a purposeful programmatic decision to maximize services and resources (see Umansky, Hopkins, & Dabach, 2020). Some research points to possible benefits associated with

EL services in more concentrated EL environments, perhaps because of this density of resources. For example, Callahan and colleagues (2008) found that immigrant students benefited more from EL services when enrolled in high-concentration immigrant schools, as compared to those enrolled in low-concentration immigration schools.

Segregation, integration, clustering, and related trends are often linked to larger sociocultural and contextual factors, such as population changes, housing policy, and other factors. However, reporting on patterns of concentration and dispersion within districts and schools can inform policy and practice through deepening our understanding of how certain student groups are experiencing and accessing the education system (Orfield, Siegel-Hawley, & Kucsera, 2014). Thus, we examine newcomer student distribution as one key factor shaping contexts of reception.

### **Demographic and Academic Factors Shaping Newcomer Contexts of Reception**

In addition to newcomer distribution, prior research indicates that a variety of other factors play important roles in shaping contexts of reception for newcomer students. These include: 1) linguistic concentration, 2) EL concentration, 3) school-level economic disadvantage, 4) school-level academic performance, and 5) district enrollment.

**Linguistic concentration.** Prior research suggests that immigrating to a community with high concentrations of other immigrants has both benefits and drawbacks. Substantial proportions of immigrants are people of color and are economically disadvantaged. Thus, when residing in neighborhoods with high concentrations of other immigrants, they may experience the widely documented negative effects associated with living in low-income neighborhoods and experiencing residential segregation (e.g., Frank, Cerda, & Rendon, 2007; Jackson & Mare, 2007; Orfield & Lee, 2005; Ornelas & Perriera, 2011). However, as Glick and colleagues

described, “[I]mmigrant or co-ethnic enclaves may be important sources of social capital that enhance economic mobility among adults” (2013, p. 4). For example, Zhou & Kim (2006) described how Chinese and Korean immigrants residing in co-ethnic enclaves mobilized to organize supplementary schooling for their children in their home languages, bolstering their children’s cultural and linguistic capital. Portes and Rumbaut (2001), in their landmark study of children of immigrants, found more positive long-term outcomes for individuals who maintained their home language, which is facilitated by residing in areas with higher concentrations of others who share the same home language.

Residing in a location with a high concentration of others who speak the same home language can potentially lead to educational opportunities within the regular school day, as well. Research has found that bilingual programs, which educate students in both a partner language and English, have positive effects on academic achievement (Steele et al., 2017; Valentino & Reardon, 2015). Because most forms of bilingual education are designed to serve at least some students who speak the partner language at home, these programs are typically easier to implement in locations that already have a relatively high concentration of speakers of the partner language. Interest in, and support for, bilingual programs may also be higher in these contexts (Amaral, 2001; Farruggio, 2010). Other recommended strategies for facilitating language and content learning for ELs, including newcomers, such as partnering a less English-proficient student with a more English-proficient student who shares the same home language, also are more feasible with higher concentrations of children who share the same home language (e.g., García & Kleifgen, 2018).

**EL concentration.** Past research at the national level has found that ELs are highly concentrated within particular schools, with over 70% of ELs enrolled in only 10% of schools

nationwide (Cosentino de Cohen, Deterding, & Clewell, 2005). The EL concentration of a school may shape the context of reception for newcomer students for a variety of reasons. Studies examining the relationship between the concentration of ELs in a school and student-level outcomes suggests both potential benefits and drawbacks. An analysis of national data indicated that ELs in schools where more than 25% of the student body were ELs tended to develop English proficiency more slowly than their peers in schools with lower EL concentrations (Halle, Hair, Wandner, McNamara, & Chien, 2012). However, as described earlier, other research suggests that schools with higher EL concentrations are more likely to offer specialized instruction designed for ELs, have standardized procedures for identifying ELs, provide professional development for teachers around effectively supporting ELs, and engage in parent outreach, all of which may support ELs' success (Cosentino de Cohen et al., 2005). As such, it is unclear whether and under what circumstances higher EL concentration is beneficial or harmful to newcomers.

**School-level economic disadvantage.** An additional factor that shapes the context of reception for immigrant students is school-level economic disadvantage. School-level socioeconomic status (SES) has a significant and positive relationship with student outcomes, independent of student-level SES (Caldas & Bankston, 1997; Perry & McConney, 2010). In other words, individual students, on average, do better when attending schools with higher average SES levels. In addition, a wide variety of research has found that schools serving higher concentrations of students from low-income families have less experienced teachers, less well-maintained facilities, and fewer advanced course offerings (e.g., Almy & Theokas, 2010; Ladson Billings, 2006; Oakes, 2004; U.S. Department of Education, Office of Civil Rights, 2018), all of which would negatively impact the context of reception newcomers encounter at school.

**School-level academic performance.** The peer effects literature suggests that the academic achievement of children’s classmates may impact their own performance (e.g., Hanushek, Kain, Markman, & Rivkin, 2003). Additionally, high-performing schools are often staffed by highly-effective teachers, whose experience and expertise may be important supports for newcomer students. Thus, school-level academic performance is another contextual factor we examine, given its potential to shape newcomer students’ outcomes.

**District enrollment.** District enrollment is the final factor related to the context of reception for newcomer students that we examine. Prior research finds that school district infrastructure plays an important role in shaping teachers’ opportunities to learn about EL instruction (Hopkins et al., 2016). Districts that enroll more students may have more resources to develop the infrastructure necessary to serve newcomer students. While data do not allow us to examine urbanicity, larger districts are typically in or near large metro areas, which may have more robust networks of translators and social service agencies with which school districts can partner. At the same time, research on newcomer supports indicates that smaller districts may be nimbler in creating and adapting services for newcomers (Dentler & Hafner, 1997).

Overall, examining the distributional, demographic, and academic factors that shape contexts of reception for newcomer students can enable a better understanding of the characteristics of the districts and schools that newcomers attend and can inform educational leaders’ decisions. While many of these factors are driven in large part by broader forces—such as immigration patterns, housing policies, job opportunities, and decisions about school and district boundaries—educational leaders may use information about newcomer students’ contexts of reception in a variety of ways. For example, knowing the concentration of students who speak the same home language in schools that newcomers of particular linguistic backgrounds attend

can inform decisions about the feasibility of implementing bilingual programs for particular partner languages. Similarly, knowing the EL concentration within schools can inform decisions about the English language development program model that would be most appropriate for newcomers, as well as strategic planning about the particular organizational and instructional capacity that is needed (Lowenhaupt & Reeves, 2015).

### **Key Subgroups within the Newcomer Population**

Having described the contexts of reception framework and the specific contextual factors we will analyze, we now turn to describe the subgroups within the newcomer population that will be the focus of our second research question.

All newcomer students bring rich assets to their U.S. schooling experiences, typically including knowledge of another language. Newcomer students may also share common challenges as they learn to navigate a new school in a new country, including socioemotional challenges related to dislocation and acculturation, and social and academic challenges as they acclimate to a new education system (Hopkins, Martinez-Wenzl, Aldana, & Gándara, 2013; Gayatan & Suarez-Orozco, 2011; Sugarman, 2017). Descriptive work suggests that newcomers, on average, have lower English proficiency levels and academic performance levels compared to their other EL counterparts (Umansky et al., 2018).

Beyond these commonalities, however, newcomers vary in many ways, including in their home language backgrounds, SES, first language literacy knowledge, grade-level content knowledge, English literacy development, pre-migration experiences, and age of entry into U.S. schools (Short & Boyson, 2012). Because there is wide diversity among newcomer students, we examine contexts of reception not only for newcomers overall (research question 1) but also for particular newcomer subgroups (research question 2). Below, we provide an overview of

particular newcomer subgroups that emerge from prior literature and that we can identify within our dataset, describing key characteristics of each. These subgroups are: newcomers with particular linguistic backgrounds, refugee students, SIFE, unaccompanied minors, and migrant students.

**Linguistic backgrounds.** Newcomer students come from a multitude of linguistic backgrounds. Recent analysis of newcomer students drawing on data from the same two states analyzed in this study found that, while Spanish was by far the most commonly spoken language among newcomer students, there was greater diversity in linguistic background among newcomers than among other ELs; approximately 40-50% of newcomer students spoke Spanish compared to approximately 80% of other English learners (Umansky et al., 2018). While the linguistic composition of the newcomer population varies substantially across states, this general pattern of lower proportions of Spanish speakers among newcomers compared to other ELs likely holds at the national level, given that immigration from Asia has surpassed immigration from Latin America in recent years (NASEM, 2017).

**Refugee students.** Refugees arrive in the United States fleeing persecution and/or violence in their home countries. In 2013, approximately 70,000 refugees entered the U.S., 34% of whom were under the age of 18 (Martin & Yankay, 2014). The national origin of refugees arriving in the United States varies considerably over time in response to political and environmental events. In 2013, the largest shares of refugees arriving in the United States were from Iraq, Burma, Bhutan, and Somalia (Martin & Yankay, 2014). U.S. refugee policy has shifted substantially in recent years, with recent executive orders dramatically lowering the total number of refugees to be admitted, as well as barring individuals from particular countries from obtaining visas to enter the U.S. (Pierce & Meisner, 2017; Gladstone & Sujiyama, 2018). In

2018, the United States admitted only about 20,000 refugees, approximately one-fourth the total admitted in 2016 (Hansler, 2018). Given the trauma that many refugees have experienced prior to their migration, as well as challenges during the immigration process itself, researchers have documented that refugee students may have particular mental health needs (Hos, 2016b; McBrien, 2005).

**Students with interrupted formal education.** A subgroup of newcomer students arrives in the United States with interrupted formal education. For example, some students have experienced interrupted formal education because attending school in their home country was too dangerous, because there were no schools accessible in their home country, because they left school early to join the workforce, or because they had no access to schools during their migration process. A recent study using national data estimates that approximately 10% of foreign-born students arrive in the U.S. with interrupted schooling, and these students are more likely to be adolescents (Potochnick, 2018). Ethnographic research about SIFE found that, in addition to their educational needs, they had strong psychological support needs to recover from past trauma, had many responsibilities outside of school, and had limited knowledge about the U.S. educational system, such as understanding high school graduation requirements (Birman & Tran, 2017; Hos, 2016b).

**Unaccompanied minors.** In recent years, an increasing number of children have arrived in the United States without a parent or guardian. The number of unaccompanied minors apprehended by the U.S. Border Patrol peaked in 2014 at 70,000 children, primarily from Guatemala, El Salvador, Honduras, and Mexico (Ataia et al., 2018). Like refugees, many unaccompanied minors are seeking to escape violence and persecution (U.N. High Commission for Refugees, 2014). After arriving in the United States, unaccompanied minors are particularly



likely to “...experience a lack of protection and mistreatment while navigating various stages of the U.S. immigration system, including apprehension, screening, custody, and adjudication” (Ataia et al., 2018, p. 4). Given the traumatic events that many unaccompanied minors have experienced before, during, and after their immigration journey, districts and schools serving this population have recognized a strong need for trauma-informed mental health services (Acuña & Escuerdo, 2015). In addition, because of many unaccompanied minors’ tenuous legal status in the U.S., legal services may also be crucial, as well. There is considerable overlap among the SIFE, refugee, and unaccompanied minor subgroups.

**Migrant students.** Migrant students are defined under federal law as students with a parent who is a migratory agricultural worker and who moved across school districts within the past three years to pursue temporary or seasonal work (ESSA, 2015). Migrant students tend to be economically disadvantaged and also may experience educational challenges as a result of their frequent movement to different schools (Lundy-Ponce, 2010). No national data exists about the proportion of migrant students who are newcomers, but data from the two states examined here indicate that the majority of migrant students are not recent immigrants. A variety of programs for migrant students exist, including programs to provide students with access to online learning opportunities and pre-K programs designed specifically with the needs of migrant families in mind (Lundy-Ponce, 2010).

Understanding variation in the contexts of reception that different newcomer subgroups experience has the potential to inform educational leaders about the needs of particular subgroups and the programs, policies, and practices that may be most beneficial.

## **Methods**

### **Data**

We drew on two anonymous, statewide datasets to examine various features of contexts of reception for newcomer students. The datasets were initially obtained as part of a larger research collaborative partnership with the Council of Chief State School Officers (CCSSO; Umansky et al., 2018). We obtained both datasets through a voluntary sampling approach, soliciting participation during a meeting of state education officers focused on EL and newcomer issues. While many state officials expressed interest in participating, only two had a means of identifying newcomer students within their data systems and were able to obtain the necessary permissions to share their data with us.

Both states provided statewide, de-identified student-level data, which included a number of key variables. First, of critical importance, both states had data that allowed us to identify all newcomer students, other immigrant students, and other EL students in the state's education system in 2016. Both datasets also included demographic data on students' gender, economic disadvantage (as measured by free or reduced-price lunch eligibility), and EL students' home language. State 1 also included information about students' identification as unaccompanied minors or refugees, while State 2 provided identification of students with interrupted formal education. While both states had data on students' home language, neither state provided information on students' country of origin.

The two datasets included identifiers for students' district, school, and grade, allowing us to examine the district and school context. The dataset also included students' English language proficiency and content-area assessment scores. As such, we were able to use district- and school-wide information to capture the contexts of reception newcomer students encounter, as evidenced by a range of distributional, demographic, and academic factors.

[Table 1 about here]

Table 1 presents information about the sample characteristics from both states. Information about four student groups is provided: 1) newcomers, which, as a reminder, we define as EL-classified students who are between the ages of 3-21, were born outside the U.S., and have been enrolled in U.S. schools for less than three academic years; 2) other ELs (OELs), a group that includes all ELs who are not newcomers; 3) immigrant students who have been in U.S. schools for fewer than three years but whose English was considered fluent when they first entered school, referred to as non-EL newcomers; and 4) non-immigrant English proficient students, referred to as other English proficient (OEP) students. While State 1 served more students overall, State 2 had a larger newcomer population, with 6,095 newcomer students compared to 3,447 newcomer students in State 1.

The states' newcomer populations were fairly similar in their demographic makeup given the available variables, with similar proportions of students who were female, economically disadvantaged, and participated in special education (see Table 1). In both states, Spanish was the language most frequently spoken by newcomers, although Spanish was much less prevalent among newcomers than among other ELs. Arabic and Somali were also among the five most prevalent home languages for newcomers in both states. State 1 had sizable populations of Portuguese- and Swahili-speaking newcomers while State 2 had sizable populations of Chinese- (e.g., Mandarin or Cantonese) and Vietnamese-speaking newcomers. In both states, we see that newcomer students were less likely than OELs, but more likely than the two other student groups, to be economically disadvantaged. Also, in both states, the two immigrant groups (newcomers and non-EL newcomers) were much less likely to participate in special education than the two non-immigrant groups (OELs and OEPs). Interestingly, newcomers in both states had higher average state math assessment scores than OELs (though lower mean English

proficiency levels), perhaps reflecting the fact that some newcomer students entered U.S. schools with strong math preparation in their home countries.

### **Analytic Strategy**

The first step in our analysis was to create key variables of interest. To begin, we constructed indicators for the primary student groups described above: newcomers, OELs, non-EL newcomers, and OEPs. Next, we used information on students' home language, migrant status, and other characteristics to construct indicators for each of our newcomer subgroups. With these variables of interest, we were then able to explore our descriptive questions regarding contexts of reception for newcomer students overall and for newcomer subgroups. Here, we describe how we approached each research question.

**Research question 1.** First, to determine the distribution of newcomer students across districts and schools, we tabulated the percentage of newcomer students, first within districts and then within schools. We calculated the percentage of districts and schools serving particular numbers and concentrations of newcomer students. We also analyzed the distribution of newcomer students from the student perspective, calculating the percentage of newcomer students attending districts and schools serving particular numbers and concentrations of newcomer students.

Next, to explore the clustering of newcomer students in greater depth, we calculated a series of dissimilarity indices. The dissimilarity index is the most widely used segregation measure. It describes how evenly distributed members of a group are in relation to another group, across units within a bounded geographical level (Massey & Denton, 1989; Orfield, Siegel-Hawley & Kucsera, 2014). The dissimilarity index's key strengths are ease of interpretation and its ability to convey clear information about the evenness with which groups

are dispersed across and within units (Allen & Vinales, 2007). For example, when looking within a state, the index can measure the evenness with which students in a certain racial group are distributed across districts in relation to students in another racial group. The dissimilarity index reports a value between zero and one, representing the proportion of students in a group who would need to move across units, within the geographic level, to achieve the most even distribution possible in relation to another student group (Reardon & Firebaugh, 2002). For example, when calculating a value for students in a focal group across districts within a state, a value of .50 would signal that 50% of students in the focal group would need to move districts within that state in order to achieve the most even possible distribution in relation to the reference group of students. A value of zero would signal the most even distribution possible, while a value of one would signal the most uneven distribution possible. Generally, a dissimilarity index value below .30 is considered low, while .30 to .60 is considered moderate, and above .60 is considered high (Massey & Denton, 1988).

While the dissimilarity index has been used to explore distribution for a variety of student groups, no prior research of which we are aware has applied the dissimilarity index to newcomer students specifically, and only a small number of studies have applied the measure to understanding EL distribution more broadly (Helig, Holme, LeClair, Redd, & Ward, 2016; Knight & Matthews, 2017). In the context of immigrant and EL education, the dissimilarity index provides unique insights into to how newcomers are clustered across and within districts in relation to their non-newcomer peers. While other descriptive analyses are critical to understanding the concentration of newcomers in both districts and schools, including a segregation measure allows us to better understand how clustered newcomers are in relation to their non-newcomer peers, as well as conduct similar analyses for newcomer subgroups. This

can provide important information about patterns of within-district and/or within-state clustering not captured by other measures of concentration. For example, a particular school may have a low concentration of newcomer students. However, the school may be located in a district with a small population of newcomer students overall, with almost all newcomer students clustered in one school. In this case, the within-district dissimilarity index would be high, indicating the clustering of newcomer students within particular district schools. In contrast, a school may have a high newcomer student concentration but be located in a district where the newcomer population is high at all schools. In this case, the within-district dissimilarity index would be low, reflecting the fact that newcomer students are relatively evenly distributed across the district in relation to their non-newcomer peers.

We calculated dissimilarity indices for newcomers across districts within states, as well as within-district dissimilarity indices for each district. The latter captured the evenness with which newcomer students were distributed in relation to non-newcomer students across schools, given the district population of newcomer and non-newcomer students. Within-district indices are only calculated for districts that enroll one or more newcomer students or one or more student in the newcomer subgroup of interest. For within-district values, we report the mean and median dissimilarity index and its standard deviation across all districts. This contrasts with the cross-district indices which are not means, but instead are the single value capturing the statewide dissimilarity index. Therefore, for statewide values, there is no variation or measure of precision (i.e., standard deviation). All analyses were conducted using Stata version 15, using the Stata module *seg*, developed specifically to run segregation indices (Reardon & Townsend, 1999).

Finally, to explore other factors about the contexts of reception for newcomer students, we calculated median values for key contextual factors in the schools attended by newcomer students. The variables for which we calculated median values were: EL concentration, the concentration of students who spoke students' home languages, the percentage of students scoring proficient on state English language arts and math assessments, the percentage of economically disadvantaged students, and total district enrollment. For total enrollment, we defined small districts as enrolling under 12,000 students, medium-sized districts as enrolling between 12,000-24,999 students, and large districts as enrolling 25,000 students or more (Schirm & Kirkendall, 2010). We also calculated median values for our contextual variables in the schools attended by other ELs, non-EL immigrant students, and other English-proficient students, to allow for comparisons between contextual factors in the schools newcomer students attended and the schools attended by these other groups.

**Research question 2.** For research question 2, we followed a similar methodological approach but disaggregated newcomer students into key subgroups. These key subgroups included different linguistic groups and SIFE, refugee, unaccompanied minor, migrant, and economically disadvantaged students. First, to analyze the distribution of newcomer subgroups, we calculated the percentage of districts and schools in each state that served each subgroup. We also calculated the median newcomer count and newcomer concentration in the districts and schools serving each subgroup. To explore the distribution of newcomer subgroups in greater depth, we then calculated across and within-district dissimilarity indices, as in research question 1. We calculated these dissimilarity indices for newcomers in each of the top five language groups, and then for other newcomer subgroups. For each of the newcomer subgroups, we calculated the dissimilarity index using all students not in that group (i.e., for Somali-speaking

newcomers, the reference group was all students who were not Somali-speaking newcomers) as the reference group. Finally, to analyze other factors shaping contexts of reception for newcomer subgroups, we calculated median values for these factors (EL concentration, same home language concentration, percentage of students scoring proficient in ELA and math, percentage of economically disadvantaged students, and total district enrollment) separately for each subgroup. We now turn to our study results, addressing each of the two research questions in turn.

## Findings

### Contexts of Reception for Newcomers Overall

**Distribution of newcomers across and within districts and schools.** The first feature of contexts of reception we examined was the distribution of newcomers within districts and schools. Most newcomers were concentrated in a small proportion of districts and schools. The dispersion of the remaining newcomers meant that a large number of districts and schools served very small newcomer populations. In both states, the majority of districts either served no newcomers at all (69% of districts in State 1 and 46% in State 2), or served very low counts and proportions of newcomers (see Table 2). Thus, a small number of districts served large numbers and large concentrations of newcomers. For example, in each state, only 11 districts (representing less than 8% of all districts in each state) had over 100 newcomers.

[Tables 2 & 3 about here]

A similar picture emerged when examining the distribution of newcomers across schools (see Table 3). While about half of schools in each state served no newcomers, the vast majority of those with newcomer students served very small newcomer populations: Forty-one percent of schools in State 1 and State 2 served between 1 and 10 newcomer students. Given the grade



spans offered in any given school, this likely amounts to an average of, at most, one or two newcomers per grade level. A small set of schools in each state served a larger number of newcomers, with eight schools in State 1, and 13 schools in State 2, serving more than 50 newcomers.

[Table 4 about here]

Rather than taking the district or school as the unit of analysis (as presented in Tables 2 and 3, respectively), Table 4 presents enrollment information from a newcomer student's perspective. This analysis reveals that about one-third of newcomers were in schools in which they were one of very few (10 or fewer) newcomers, with 3% of newcomer students finding themselves in schools where they were the only newcomer. However, the majority of newcomers were in settings with higher newcomer populations, and in State 1, nearly a quarter of newcomers were in schools where there were more than 50 newcomer students.

**Segregation measures.** Table 5 provides more information about the distribution of newcomers by presenting dissimilarity indices, both across and within districts. As described above, cross-district dissimilarity indices capture the proportion of newcomer students who would need to change districts in order to achieve the most even distribution of newcomer students and non-newcomer students across districts within the state. Similarly, within-district dissimilarity indices capture the proportion of newcomer students that would need to move schools in order to achieve the most even distribution of newcomers across schools, within the district, given the district population.

[Table 5 about here]

Looking across districts, there were differences in the dissimilarity indices for newcomer students as a whole between State 1 and State 2. However, the within-district dissimilarity

indices of the two states were similar. In State 1, 35% of newcomer students would have needed to move districts in order to achieve the most even distribution of newcomers and non-newcomers across districts, indicating moderate segregation. In State 2 the percentage was lower, at 24%. However, the average within-district dissimilarity indices for newcomer students were similar in both states, as on average about one-third of newcomers in each state would have needed to move schools to achieve the most even distribution of newcomers and non-newcomers across schools, within the states' districts. Therefore, in both states this indicates moderate within-district segregation of newcomers in relation to non-newcomers.

**Additional demographic and academic factors.** Table 6 provides information about other factors shaping contexts of reception for newcomer students. The table first presents information about characteristics of the districts and schools that all newcomers attended in comparison to the characteristics of districts and schools that other ELs, non-EL newcomers, and other English proficient students attended.

[Table 6 about here]

These analyses show that newcomers were less concentrated than other ELs in higher-poverty, lower-performing schools, however they were more concentrated in these schools than non-EL students. Specifically, in comparison to OELs, newcomers in both states attended schools that had lower concentrations of ELs, lower concentrations of students speaking the same home language, lower concentrations of economically disadvantaged students, and higher proportions of students scoring proficient on the state ELA and math assessments. However, when compared to non-EL newcomers and OEPs, newcomer students attended schools with higher concentrations of ELs, higher concentrations of economically disadvantaged students, and lower proportions of students scoring proficient on the state ELA and math assessments. While

the above information provides an important, overarching picture of the contexts of reception newcomer students encounter, the newcomer group is incredibly diverse. Therefore, we turn to our second research question, which examines the educational contexts of reception for specific newcomer subgroups.

### **Characteristics of the Contexts of Reception for Newcomer Subgroups**

**Distribution of newcomer subgroups across and within districts and schools.** Table 7 presents information on the distribution of newcomer subgroups across districts and schools. Spanish-speaking newcomers were relatively widely distributed across districts and schools, while smaller populations, such as Arabic- and Somali-speaking newcomer populations, were far more concentrated. In State 2, for example, close to half of districts and over a third of schools served at least one Spanish-speaking newcomer. In State 1, over 40% of schools served at least one Spanish-speaking newcomer, but these schools were clustered in about a quarter of the state's districts. Other language groups were less widely distributed, largely because of their smaller numbers. Yet some subgroups were far more clustered than others. For example, in State 1, newcomers with refugee status (804 students) were clustered in 7% of districts, and the much smaller population of unaccompanied minor newcomers (42 students) was spread across almost the same proportion of districts. Highly clustered subgroups were particularly apparent in State 1, where Somali- and Swahili-speaking newcomers were in schools that served a median of 106 and 87 other newcomers, respectively. This is compared to Spanish-speaking newcomers who were in schools with a median of nine newcomers. In State 2 there was less variation in the relative clustering of newcomer subgroups. Across all language subgroups in State 2, for example, newcomers were in schools with a median of 11-20 newcomers.

[Table 7 about here]

**Segregation measures.** As noted previously, the dissimilarity index provides information about the relative segregation of each group in relation to all students not in that group. As shown in Table 8, these measures offered additional evidence that smaller linguistic newcomer subgroups (e.g. Somali, Vietnamese, and Arabic speakers) were more clustered across and within districts than larger groups (e.g., Spanish speakers). For example, in State 1, over 60% of Arabic-, Somali-, and Swahili-speaking newcomer students would have needed to change districts to achieve the most even distribution, indicative of high segregation. This was compared to only 28% of Spanish speakers and 36% of Portuguese speakers, which suggests low and moderate segregation, respectively. In State 2, linguistic groups were generally less concentrated in particular districts, although we still observed moderate segregation; for example, 40% of Arabic-, Somali-, and Vietnamese-speaking newcomers would have needed to move districts in order to achieve the most even distribution across the state. Turning to within-district dissimilarity indices, we found that in both states, the average indices were lowest for Spanish-speaking newcomers. However, the average was indicative of moderate segregation in State 2 (0.41), while in State 1 the average value indicated low segregation (0.16). The within-district dissimilarity indices were higher for other linguistic subgroups, suggesting that newcomers who spoke languages other than Spanish were likely to be clustered in a small number of schools within their district.

[Table 8 about here]

Results also indicated that refugees, unaccompanied minors, SIFE, and migrant students all tended to be highly clustered in both districts and schools, with cross-district dissimilarity indices ranging from .50-.83 and within-district dissimilarity indices ranging from .49-.82, all indicative of moderate to high segregation. For example, in State 1, just nine of the 46 districts

that enrolled newcomer students enrolled unaccompanied minors, and these students appeared to be tightly clustered within schools.

**Additional demographic and academic factors.** As shown in Table 9, newcomers of different linguistic backgrounds attended schools and districts with starkly different characteristics. For example, in comparison to other linguistic subgroups, Portuguese speakers in State 1 and Chinese speakers in State 2 attended schools with substantially higher proportions of students scoring proficient on state content assessments and substantially lower concentrations of ELs, students who spoke the same home language, and economically disadvantaged students. On the other hand, relative to other linguistic subgroups, Somali speakers in both states, on average, attended schools with the highest concentrations of economically disadvantaged students and the lowest proportions of students scoring proficient on state content assessments. For example, the median percentage of economically disadvantaged students within a school was 90-97% for Somali speakers in both states, compared to roughly 35% for Portuguese speakers in State 1 and Chinese speakers in State 2.

[Table 9 about here]

Spanish-speaking newcomers in both states attended schools with higher concentrations of students who shared their home language than did other linguistic subgroups. This contrasts with findings from the dissimilarity indices reported above, which indicated that Spanish-speaking newcomer students were less clustered with other newcomer students who also spoke Spanish. While Spanish-speaking newcomer students were less clustered with other newcomer students who spoke their home language, they attended schools with relatively high percentages of Spanish speakers overall, largely because Spanish was by far the most common home language for OELs in both states. The contrast between Spanish speakers and other subgroups

was particularly pronounced in State 2, where the median percentage of Spanish speakers within schools attended by Spanish-speaking newcomers was 13.1%, while the median percentage of students who spoke the same home language in schools attended by other linguistic subgroups was 1.3% or below in all cases.

Other newcomer subgroups, such as migrant students, unaccompanied minors, and economically disadvantaged students, also tended to enroll in schools with divergent contextual characteristics. For example, in State 1, refugee students attended schools with much higher concentrations of ELs and much higher concentrations of economically disadvantaged students than did unaccompanied minors or migrant students. When comparing contexts of reception for newcomers by SES, we see that in both states, economically disadvantaged newcomers, on average, attended schools with lower academic performance. The schools attended by economically disadvantaged newcomers also tended to have higher concentrations of ELs, students who spoke the same home language, and other economically disadvantaged students.

## **Discussion**

### **Key Findings**

This study sought to explore and describe key features of educational contexts of reception for newcomer students in two states, as evidenced by distributional, demographic, and academic measures for newcomers' districts and schools. We also explored variation in contexts of reception for key newcomer subgroups. From a district and school perspective, we found that while a few districts and schools supported highly concentrated populations of newcomers, many more districts and schools enrolled very few newcomer students, oftentimes fewer than one per grade level, on average. We also found that subgroups of newcomers, including linguistic subgroups, as well as refugee, SIFE, migrant, unaccompanied minor, and economically

disadvantaged newcomers, had very different distributional patterns, and their educational contexts of reception differed widely on other dimensions, as well. These findings have important implications for educational leaders and for policy.

Looking at districts and schools as the unit of analysis, we found that approximately half of education agencies in these states served no newcomers at all, and among those that did, most served relatively low numbers and concentrations of newcomer students (see Tables 2 and 3). However, taking newcomer students as the unit of analysis, we found that most newcomer students were in schools with more than 10 other newcomer students, and many were in much higher-density contexts. For example, 23% of newcomer students in State 1 attended schools with more than 50 newcomers. In addition, looking at newcomer subgroups, we found that particular subgroups, such as refugees, unaccompanied minors, and students with interrupted formal education were highly clustered in particular schools. It is important to note that while cross-district clustering is likely the result of immigration patterns and is outside the control of education agencies, within-district clustering could be the result of either residential segregation patterns or district decisions to serve certain students in certain schools (for instance, through newcomer programs). Either way, findings suggest that educational leaders need to attend to both high- and low-density newcomer contexts.

Perhaps surprisingly, we found that newcomers were more likely to be in higher-income and higher-performing schools compared to other ELs. This may reflect the more diverse national, economic, and educational backgrounds of newcomers compared to other EL students. It may also, however, reflect negative contexts of reception encountered by many Latinx immigrant families. These negative contexts of reception may result in more limited economic and social mobility for U.S.-born ELs, who in both states—as in the country at large—are

predominantly Latinx (Portes & Rumbaut, 2006). While the finding that newcomers typically attended higher-income and higher-performing schools than other ELs held for newcomers as a whole, we also found that newcomer subgroups faced highly divergent educational contexts of reception. For example, Somali-speaking students in both states were highly clustered in a small number of districts and schools, and the median percentage of economically disadvantaged students in those schools was at least 90%.

## **Implications**

**Implications for educational leaders.** Prior research presents a variety of recommendations for effectively serving newcomer students. These include implementing programs specifically designed for newcomers (Short & Boyson, 2012), implementing classes specifically designed for refugee students and/or students with interrupted formal education (DeCapua & Marshall, 2010, 2011; Hos, 2016a, 2016b), and partnering less English-proficient students with more English-proficient students who speak the same home language (e.g., García & Kleifgen, 2018). Other important supports for newcomers may include wrap-around services such as mental and physical health services, bilingual teachers or aides, immigrant community liaisons, and afterschool programs (Dentler & Hafner, 1997; Umansky et al., 2018). Our findings regarding newcomer distribution suggest that there is a critical mass of districts and schools that serve large numbers or proportions of newcomers where developing and enhancing these types of services may be both feasible and advisable.

For example, in the states examined here, refugee students, unaccompanied minors, and students with interrupted formal education were clustered in a small number of schools. Because the needs of these student subgroups, in particular, are often acute, these schools would likely benefit from additional support services, additional partnering with community organizations,



additional staffing, and additional funding (above and beyond general funding formulas for ELs). By better understanding distributional patterns for newcomer students overall, and for particular newcomer subgroups, practitioners could make more informed decisions about how to target resources and interventions.

Our findings lead to a second main conclusion, however, and this is that many of the practice recommendations for newcomers have very limited viability in contexts where there are neither relatively high concentrations of newcomers nor relatively high concentrations of students who speak the same home language. As noted above, our findings indicate that while many newcomers were in these relatively high-density contexts, a substantial proportion were in contexts with few other newcomers and/or few other students who speak their home language. Among districts serving any newcomer students, approximately two-thirds in both states had 20 or fewer newcomers, which is likely not enough to make a newcomer program feasible, given that newcomer students are spread across grades K-12. Similarly, when schools are the unit of analysis, we see that most schools serving newcomers had low EL concentrations. Among schools enrolling any newcomers, about half in State 1 and about one-third in State 2 had EL concentrations of 5% or less. (Results available from the authors.) In addition, as illustrated in Table 9, among all newcomer linguistic subgroups apart from Spanish speakers (and Somali speakers in State 1), newcomer students attended schools where the median percentage of students who shared their home language was about 1%.

More research about effective strategies for serving newcomers in these low-density contexts is needed. For example, prior studies have documented ways in which technology can scaffold content learning for newcomers, by enabling students to access content materials in their primary language, but this work has typically occurred in schools with relatively high newcomer

concentrations (e.g., Hopkins et al., 2013). Educational leaders, teachers, and researchers could potentially partner to pilot similar approaches in low-density contexts and document affordances and constraints.

**Implications for policy.** In addition to implications for educational leaders, findings also have a variety of implications for policy. First, findings have implications for state data systems. Given the widely varying distribution and contexts of reception for newcomer subgroups, it is important for state education agencies to collect and analyze information about newcomer students generally and newcomer subgroups specifically. This data would enable better targeting of resources at both the state and district level.

Second, findings suggest that state and regional education agencies could potentially have an important role to play in providing technical assistance and facilitating professional learning for districts and schools serving newcomer students, in both high- and low-density contexts. For example, regional education agencies could potentially fund staff positions to provide primary language support to newcomer students from particular linguistic subgroups across multiple districts, which might be impossible for a single district serving a low number of newcomers to fund on its own. Similarly, state education agencies could convene staff from schools serving high (or low) proportions of refugees, unaccompanied minors, and students with interrupted formal education to share strategies, a support that could be key for schools experiencing changes in the newcomer student groups they are enrolling.

Third, these findings have implications for education funding. In high-concentration districts and schools, agencies are supporting dense communities with often acute needs. States could put into place a provision such as California's concentration grants (Imazeki, 2018), where the state provides additional funds to districts or schools that have reached set concentration

thresholds in order to fund targeted supports. Or, alternatively, states could tier funding for ELs as is done in North Dakota and Ohio, providing greater funds for ELs with lower English proficiency or recently-arrived ELs (Imazeki, 2018; Sugarman, 2016). In low-newcomer concentration districts and schools, agencies do not get sufficient funds for these often high-need students through typical EL funding formulas (Sugarman, 2016). While there are some opportunities to provide funding, especially for districts experiencing rapid immigration growth (ESSA, Title III § 3114(d)), states could provide financial support to these agencies through resources such as shared staffing, professional development, or online curricula.

In addition, findings also have implications for accountability systems. Under ESSA, (2015), districts and schools that serve below a particular, state-established number (called N-size) of EL students do not have EL outcomes factored into their accountability rating as a separate subgroup. Therefore, administrators in low-density EL contexts may have less incentive to focus on meeting the needs of EL students, including newcomer students, than administrators in education agencies where EL outcomes are a discrete component of the agency's accountability rating. It may be particularly useful for state and regional education agencies to monitor services for newcomers in low-density contexts given this accountability loophole.

### **Limitations and Directions for Future Work**

This study has a variety of limitations. First, we could only explore contextual features of newcomers' districts and schools that are captured in state administrative data. It is undoubtedly the case that the district and school characteristics we examined only scratch the surface of the educational contexts of reception for newcomers and newcomer subgroups. However, we believe that this study provides a first exploration of these characteristics of newcomers' districts and schools, and puts forward an argument that these distributional, demographic, and academic

measures are critical elements of educational contexts of reception shaping students' opportunities and outcomes.

Second, we draw on data from only two states. As we demonstrate, these two states differ in the characteristics of their newcomer populations overall, their newcomer subgroups, the distribution of newcomers within the state, and the contexts of reception that newcomers encounter. This study's findings are not generalizable to other contexts. Rather, they point to the importance of collecting and analyzing data about newcomers to understand their contexts of reception within other states and districts. We suggest that educational leaders could potentially adapt methods used here to analyze contexts of reception for newcomers overall and particular newcomer subgroups within their own districts and schools. A second important limitation of this study is that we do not explore relationships between contexts of reception for newcomer students and student outcomes. Further research is needed to explore these relationships.

As discussed above, separation and integration of newcomer students may be the result of intentional decisions by educational leaders and/or may be the result of broader societal forces. In higher-density newcomer contexts, district and school leaders have, in many cases, the ability to make decisions that determine the degree to which newcomers, or particular newcomer subgroups, will be concentrated or distributed across a school or district, through decisions about whether to implement specific programs or services. For example, a district administrator might decide to implement a newcomer program that would cluster all recent immigrants together within a particular school for a specific amount of time, or the administrator could decide to offer content-area classes in a particular home language at a particular school, enrolling newcomers with that home language from across the district. Similarly, a school leader might decide to offer a set of classes designed specifically for students with interrupted formal education within a

particular school, or the administrator might intentionally decide to cluster students with the same home language in a particular subset of classes to allow an instructional assistant fluent in that language to provide push-in support. However, in lower-density newcomer contexts, education leaders have limited ability to impact newcomer distribution because there are not enough students, within a district or school, to group together for targeted service. Further research is needed to explore the constraints and affordances of more and less integrated contexts for newcomer students overall and specific newcomer subgroups. Similarly, further research is needed about the particular supports and services for newcomer students that are feasible and effective in high- and low-density contexts, respectively.

Newcomer students comprise an important subset of the EL population. Therefore, providing equitable teaching and learning environments for ELs entails providing equitable teaching and learning environments for newcomers. In this study we took advantage of recent advances in state-level data collection to examine contexts of reception for newcomers and newcomer subgroups, arguing that these features shape newcomers' experiences in meaningful ways and have implications for school leaders and policymakers. The differences we see in the contexts of reception newcomers encounter serve as an important reminder that equitable teaching and learning environments must be responsive to students' experiences and needs, as well as to the assets and constraints of the school, district, and broader community.

## References

- Abrego, L. J. (2006). "I can't go to college because I don't have papers": Incorporation patterns of Latino undocumented youth. *Latino Studies*, 4(3), 212-231.
- Acuña, A., & Escudero, P. V. (2015). Helping those who come here alone. *Phi Delta Kappan*, 97(4), 42-45.
- Allen, R., & Vignoles, A. (2007). What should an index of school segregation measure? *Oxford Review of Education*, 33(5), 643-668.
- Almy, S., & Theokas, C. (2010). Not prepared for class: High-poverty schools continue to have fewer in-field teachers. *Education Trust*.
- Amaral, O. M. (2001). Parents' decisions about bilingual program models. *Bilingual Research Journal*, 25(1-2), 215-237.
- Arias, B. (2007). School desegregation, linguistic segregation and access to English for Latino students. *Journal of Educational Controversy*, 2(1), 1-14.
- Arias, M.B., and Markos, A.M. (2016). *Characteristics of the workforce who are educating and supporting children who are English language learners*. Unpublished manuscript commissioned by the Committee on Fostering School Success for English Learners: Toward New Directions in Policy, Practice, and Research, Washington, D.C.
- Ataants, J., Cohen, C., Riley, A. H., Lieberman, J. T., Reidy, M. C., & Chilton, M. (2017). Unaccompanied children at the United States border, a human rights crisis that can be addressed with policy change. *Journal of Immigrant and Minority Health*, 1-11.
- Bajaj, M., & Suresh, S. (2018). The "warm embrace" of a newcomer school for immigrant & refugee youth. *Theory Into Practice*, 57(2), 91-98.
- Bankston III, C. L., & Zhou, M. (2002). Being well vs. doing well: Self-esteem and school performance among immigrant and nonimmigrant racial and ethnic groups. *International Migration Review*, 36(2), 389-415.
- Birman, D., & Tran, N. (2017). When worlds collide: Academic adjustment of Somali Bantu students with limited formal education in a U.S. elementary school. *International Journal of Intercultural Relations*, 60, 132-144.
- Bronfenbrenner, U. (1994). Ecological models of human development. *Readings on the development of children*, 2(1), 37-43.
- Brown v. Board of Education 347 U.S. 483 (1954)
- Caldas, S. J., & Bankston, C. (1997). Effect of school population socioeconomic status on individual academic achievement. *The Journal of Educational Research*, 90(5), 269-277.
- Calderón, M. E., & Slakk, S. (2019). Success with Multicultural Newcomers & English Learners: Proven Practices for School Leadership Teams. ASCD.
- Callahan, R., Wilkinson, L., & Muller, C. (2008). School context and the effect of ESL placement on Mexican-origin adolescents' achievement. *Social Science Quarterly*, 89(1), 177-198.
- Carhill-Poza, A. (2017). "If you don't find a friend in here, it's gonna be hard for you": Structuring bilingual peer support for language learning in urban high schools. *Linguistics and Education*, 37, 63-72.
- Consentino de Cohen, C., Clewell, B. (2007). Putting English language learners on the educational map: The No Child Left Behind Act implemented. Washington D.C.: The Urban Institute.
- Consentino de Cohen, C., Deterding, N., & Clewell, B.C. (2005). Who's left behind? Immigrant children in high and low LEP schools. Washington, D.C.: The Urban Institute.

- Cortes, K. E. (2004). Are refugees different from economic immigrants? Some empirical evidence on the heterogeneity of immigrant groups in the United States. *Review of Economics and Statistics*, 86(2), 465-480.
- Crawford, E. R., & Dorner, L. M. (Eds.). (2019). *Educational Leadership of Immigrants: Case Studies in Times of Change*. Routledge.
- Dabach, D. B. (2015). Teacher placement into immigrant English learner classrooms: Limiting access in comprehensive high schools. *American Educational Research Journal*, 52(2), 243-274.
- DeCapua, A., & Marshall, H. W. (2010). Serving ELLs with limited or interrupted education: Intervention that works. *TESOL Journal*, 1(1), 49-70.
- DeCapua, A., & Marshall, H. W. (2011). Reaching ELLs at risk: Instruction for students with limited or interrupted formal education. *Preventing School Failure: Alternative Education for Children and Youth*, 55(1), 35-41.
- DeMatthews, D., & Izquierdo, E. (2018). The importance of principals supporting dual language education: A social justice leadership framework. *Journal of Latinos and Education*, 17(1), 53-70.
- Dentler, R. A., & Hafner, A. L. (1997). *Hosting newcomers: Structuring educational opportunities for immigrant children*. Sociology of Education Series. New York, NY, Teachers College Press.
- Dryden-Peterson, S. (2018). Family-school relationships in immigrant children's well-being: the intersection of demographics and school culture in the experiences of black African immigrants in the United States. *Race, Ethnicity, and Education*, 21(4), 486-502.
- Every Student Succeeds Act, 114-95 C.F.R. (2015).
- Estrada, P. (2014). English learner curricular streams in four middle schools: Triage in the trenches. *The Urban Review*, 46(5), 535-573.
- Farruggio, P. (2010). Latino immigrant parents' views of bilingual education as a vehicle for heritage preservation. *Journal of Latinos and Education*, 9(1), 3-21.
- Feliciano, C. (2006). Beyond the family: The influence of premigration group status on the educational expectations of immigrants' children. *Sociology of Education*, 79(4), 281-303.
- Fix, M., & Passel, J. S. (2003). *U.S. immigration: Trends and implications for schools*. Washington D.C.: The Urban Institute.
- Francis, D. J., Rivera, M., Lesaux, N., Kieffer, M., & Rivera, H. (2006). Research-based recommendations for serving adolescent newcomers. Practical guidelines for the education of English language learners. Book 2 of 3. *Center on Instruction*.
- Frank, R., Cerda, M., & Rendon, M. (2007). Barrios and burbs: residential context and health-risk behaviors among Angeleno adolescents. *Journal of Health and Social Behavior*, 48(3), 283-300.
- Fulgini, A. J., Witkow, M., & Garcia, C. (2005). Ethnic identity and the academic adjustment of adolescents from Mexican, Chinese, and European backgrounds. *Developmental Psychology*, 41(5), 799.
- Gándara, P., & Orfield, G. (2012). Segregating Arizona's English learners: A Return to "the Mexican Room"? *Teachers College Record*, 114(9), 1-27.
- Gándara, P., Rumberger, R., Maxwell-Jolly, J., & Callahan, R. (2003). English learners in California schools: Unequal resources, unequal outcomes. *education policy analysis archives*, 11, 36.

- García, O., & Kleifgen, J. A. (2018). *Educating emergent bilinguals: Policies, programs, and practices for English language learners* (2<sup>nd</sup> ed.). New York: Teachers College Press.
- Gladstone, R. & Sujiyama, S. (2018, July 1). Trump's travel ban: How it works and who is affected. *New York Times*.
- Gonzales, R. G. (2009). On the rights of undocumented children. *Society*, 46(5), 419-422.
- Halle, T., Hair, E., Wandner, L., McNamara, M., & Chien, N. (2012). Predictors and outcomes of early versus later English language proficiency among English language learners. *Early Childhood Research Quarterly*, 27(1), 1-20.
- Hansler, J. (2018, October 3). U.S. admits lowest number of refugees in more than 40 years. CNN. Retrieved from <https://www.cnn.com/2018/10/02/politics/us-refugees-fy18/index.html>
- Hanushek, E. A., Kain, J. F., Markman, J. M., & Rivkin, S. G. (2003). Does peer ability affect student achievement? *Journal of Applied Econometrics*, 18(5), 527-544.
- Harris, A. L., Jamison, K. M., & Trujillo, M. H. (2008). Disparities in the educational success of immigrants: An assessment of the immigrant effect for Asians and Latinos. *The Annals of the American Academy of Political and Social Science*, 620(1), 90-114.
- Hersi, A. A., & Watkinson, J. S. (2012). Supporting immigrant students in a newcomer high school: A case study. *Bilingual Research Journal*, 35(1), 98-111.
- Hopkins, M., Lowenhaupt, R., & Sweet, T. M. (2015). Organizing English learner instruction in new immigrant destinations: District infrastructure and subject-specific school practice. *American Educational Research Journal*, 52(3), 408-439.
- Hopkins, M., Martinez-Wenzl, M., Aldana, U. S., & Gándara, P. (2013). Cultivating capital: Latino newcomer young men in a U.S. urban high school. *Anthropology & Education Quarterly*, 44(3), 286-303.
- Hos, R. (2016a). Caring is not enough: Teachers' enactment of ethical care for adolescent students with limited or interrupted formal education (SLIFE) in a newcomer classroom. *Education and Urban Society*, 48(5), 479-503.
- Hos, R. (2016b). The lives, aspirations, and needs of refugee and immigrant students with interrupted formal education (SIFE) in a secondary newcomer program. *Urban Education*, 0042085916666932.
- Imazeki, J. (2018). Adequacy and state funding formulas: What can California learn from the research and national context? In S. Loeb (Ed.), *Getting Down to the Facts II*. Palo Alto, CA: Stanford University.
- Jackson, M. I., & Mare, R. D. (2007). Cross-sectional and longitudinal measurements of neighborhood experience and their effects on children. *Social Science Research*, 36(2), 590-610.
- Keyes v. School District No 1. Denver, 413 U.S. 189 (1973)
- Knight, D. S., & DeMatthews, D. E. (2017). Assessing the educational opportunity of emergent bilingual students: Why are some state school finance systems more equitable than others? Center for Educational Research and Policy Studies Working Paper. El Paso, TX: University of Texas El Paso.
- Kurlaender, M., & Yun, J. T. (2005). Fifty years after Brown: New evidence of the impact of school racial composition on student outcomes. *International Journal of Educational Policy, Research, and Practice: Reconceptualizing Childhood Studies*, 6(1), 51-78.
- Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher*, 35(7), 3-12.



- Lillie, K. E., Markos, A., Arias, M. B., & Wiley, T. G. (2012). Separate and not equal: The implementation of structured English immersion in Arizona's classrooms. *Teachers College Record*, 114(9), 2-33.
- Lowenhaupt, R. and Reeves, T. (2017), Changing demographics, changing practices: teacher learning in new immigrant destinations, *Journal of Professional Capital and Community*, 29(1), 50-71.
- Lundy-Ponce, G. (2010). Migrant students: What we need to know to help them succeed. Colorín Colorado. Retrieved from <http://www.colorincolorado.org/article/migrant-students-what-we-need-know-help-them-succeed>
- Martin, D.C., and Yankay, J.E. (2014). *Refugees and asylees: 2013*. Washington, D.C.: Office of Immigration Statistics.
- Massey, D. S. (Ed.). (2008). *New faces in new places: The changing geography of American immigration*. New York: Russell Sage Foundation.
- Massey, D. S., & Denton, N. A. (1989). Hypersegregation in U.S. metropolitan areas: Black and Hispanic segregation along five dimensions. *Demography*, 26(3), 373-391.
- Massey, D. S., & Denton, N. A. (1988). Suburbanization and segregation in U.S. metropolitan areas. *American Journal of Sociology*, 94(3), 592-626.
- McBrien, J. L. (2005). Educational needs and barriers for refugee students in the United States: A review of the literature. *Review of Educational Research*, 75(3), 329-364.
- Mendez v. Westminster School District, 161 F.2d 774 (9th Cir. 1947).
- National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the educational success of children and youth learning English: Promising futures*. Washington DC: National Academies Press.
- Oakes, J. (2004). Investigating the claims in Williams v. State of California: An unconstitutional denial of education's basic tools? *Teachers College Record*, 106(10), 1,889-1,906.
- Orfield, G., & Lee, C. (2005). *Why segregation matters: Poverty and educational inequality*. Cambridge, MA: Harvard Civil Rights Project.
- Orfield, G., Siegel-Hawley, G., & Kucsera, J. (2014). *Sorting out deepening confusion on segregation trends*. Los Angeles, CA: The Civil Rights Project/Proyecto Derechos Civiles.
- Ornelas, I. J., & Perreira, K. M. (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. *Social Science and Medicine*, 73(8), 1169-1177.
- Owens, A., Reardon, S. F., & Jencks, C. (2016). Income segregation between schools and school districts. *American Educational Research Journal*, 53(4), 1159-1197.
- Perry, L. B., & McConney, A. (2010). Does the SES of the school matter? An examination of socioeconomic status and student achievement using PISA 2003. *Teachers College Record*, 112(4), 1,137-1,162.
- Pierce, S., & Meissner, D. (2017). Revised Trump executive order and guidance on refugee resettlement and travel ban. Washington, D.C.: Migration Policy Institute.
- Portes, A., & Böröcz, J. (1989). Contemporary immigration: Theoretical perspectives on its determinants and modes of incorporation. *International Migration Review*, 23(3), 606-630.
- Portes, A., & Rumbaut, R. G. (2001). *Legacies: The story of the immigrant second generation*. Berkeley, CA: University of California Press.

- Portes, A., & Rumbaut, R. G. (2006). *Immigrant America: a portrait* (3<sup>rd</sup> ed.). Berkeley, CA: University of California Press.
- Potochnick, S. (2018). The academic adaptation of immigrant students with interrupted schooling. *American Educational Research Journal*, 55(4), 859-892.
- Reardon, S. F., & Firebaugh, G. (2002). Measures of multigroup segregation. *Sociological Methodology*, 32(1), 33-67.
- Reardon, S.F., & Townsend, J.B, (1999). SEG: Stata module to compute multiple-group diversity and segregation indices. Statistical Software Components S375001, Boston College Department of Economics, revised 18 Apr 2018
- Reardon, S. F., Yun, J. T., & Kurlaender, M. (2006). Implications of income-based school assignment policies for racial school segregation. *Educational Evaluation and Policy Analysis*, 28(1), 49-75.
- Ruiz-de-Velasco, J., & Fix, M. (2000). Overlooked & underserved: Immigrant students in U.S. secondary schools. Washington D.C.: The Urban Institute
- Scanlan, M., & López, F. (2012). ¡ Vamos! How school leaders promote equity and excellence for bilingual students. *Educational Administration Quarterly*, 48(4), 583-625.
- Schirm, A., & Kirkendall, N. (2010). Developing and evaluating methods for using American Community Survey Data to support the School Meals Programs: Interim report. (Eds.) Washington, DC: National Academies Press.
- Short, D. J. (2002). Newcomer programs: An educational alternative for secondary immigrant students. *Education and Urban Society*, 34(2), 173-198.
- Short, D. J., & Boyson, B. A. (2012). Helping newcomer students succeed in secondary schools and beyond. Washington, D.C.: Center for Applied Linguistics.
- Stepick, A., & Stepick, C. D. (2009). Diverse contexts of reception and feelings of belonging. *Forum: Qualitative Social Research*, 10(3), 2-19.
- Stritikus, T., & Nguyen, D. (2010). Universalist and differentialist approaches to instruction for high-school-age immigrants: Tensions in practice and policy. *Bilingual Research Journal*, 33(3), 329-345.
- Suárez-Orozco, C., Pimentel, A., & Martin, M. (2009). The significance of relationships: Academic engagement and achievement among newcomer immigrant youth. *Teachers College Record*, 111(3), 712-749.
- Suárez-Orozco, C., & Suárez-Orozco, M. M. (2009). *Children of immigration*. Cambridge, MA: Harvard University Press.
- Sugarman, J. (2016). Funding an equitable education for English learners in the United States. Washington D.C.: Migration Policy Institute
- Sugarman, J. (2017). Beyond teaching English: Supporting high school completion by immigrant and refugee students. Washington D.C.: Migration Policy Institute.
- Theoharis, G., & O'Toole, J. (2011). Leading inclusive ELL: Social justice leadership for English language learners. *Educational Administration Quarterly*, 47(4), 646-688.
- Umansky, I. M., Hopkins, M., Dabach, D., Porter, L., Thompson, K. D. & Pompa, D. (2018). *Understanding and supporting the educational needs of recently arrived immigrant English learner students: Lessons for state and local education agencies*. Washington DC: Council of Chief State School Officers.
- U.N. High Commissioner for Refugees. Children on the run: Unaccompanied children leaving Central America and Mexico and the need for international protection. Retrieved

from <https://www.unhcr.org/about-us/background/56fc266f4/children-on-the-run-full-report.html>

U.S. Department of Education, Office of Civil Rights. (2018). 2015-16 Civil Rights Data Collection: STEM course-taking. Retrieved from

<https://www2.ed.gov/about/offices/list/ocr/docs/stem-course-taking.pdf>

Zhou, M. (2009). How neighbourhoods matter for immigrant children: The formation of educational resources in Chinatown, Koreatown and Pico Union, Los Angeles. *Journal of Ethnic and Migration Studies*, 35(7), 1153-1179.

Zhou, M., & Kim, S. (2006). Community forces, social capital, and educational achievement: The case of supplementary education in the Chinese and Korean immigrant communities. *Harvard Educational Review*, 76(1), 1-29.

Table 1. Sample characteristics for State 1 and State 2.

	State 1				State 2			
	Newcomer	OEL	Non-EL Newcomer	OEP	Newcomer	OEL	Non-EL Newcomer	OEP
EL	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Immigrant	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Female	47.1%	46.1%	53.1%	48.8%	47.3%	45.7%	47.0%	48.9%
Economically disadvantaged	75.6%	84.3%	42.8%	33.3%	73.0%	91.1%	56.7%	52.1%
Special education	2.8%	22.5%	4.6%	12.3%	3.4%	20.4%	1.2%	13.7%
Spanish	47.7%	80.2%	-	-	42.1%	80.6%	-	-
Arabic	10.0%	1.0%	-	-	9.4%	0.9%	-	-
Somali	6.5%	0.9%	-	-	4.2%	1.1%	-	-
Portuguese	5.9%	0.6%	-	-	-	-	-	-
Swahili	4.1%	0.3%	-	-	-	-	-	-
Chinese	-	-	-	-	5.2%	1.3%	-	-
Vietnamese	-	-	-	-	4.2%	2.3%	-	-
Refugee	23.3%	1.9%	4.8%	0.1%	-	-	-	-
Unaccompanied minor	1.2%	0.8%	0.4%	1.1%	-	-	-	-
SIFE	-	-	-	-	9.7%	-	0.0%	-
Migrant	2.2%	0.9%	0.7%	0.0%	14.0%	13.5%	4.3%	1.3%
State ELA test	1.2	1.3	2.1	2.3	1.5	1.5	2.9	2.7
State math test	1.4	1.3	2.3	2.4	1.7	1.5	2.8	2.4
English proficiency	3.2	3.7	-	-	1.8	2.0	-	-
<i>N</i>	3,447	38,660	544	608,684	6,095	51,421	421	515,538

*Note.* ELA = English language arts. Home language is only available for newcomers and OELs. In State 2, SIFE data is only available for recently-arrived immigrants. ELA, math, and English proficiency assessments differ across states. In both states, the ELA and math tests are scored 1-4 (3 & above is considered proficient). In State 1, the English proficiency assessment is scored 1-6 (5 & above is considered proficient). In State 2, the four domains of the English proficiency assessment are used to determine an overall proficiency rating between 1-3 (3 is considered proficient).

Table 2. Number and percentage of districts enrolling newcomers by newcomer count and concentration.

	State 1		State 2	
	Number of districts	Percentage of districts	Number of districts	Percentage of districts
<u>Newcomer Count</u>				
0 newcomers	100	68.5%	97	45.8%
1-20 newcomers	31	21.2%	76	35.9%
21-100 newcomers	4	2.7%	28	13.2%
> 100 newcomers	11	7.5%	11	5.2%
<u>Newcomer Concentration</u>				
0% newcomers	100	68.5%	97	45.8%
>0%-1% newcomers	40	27.4%	90	42.5%
>1% newcomers	6	4.1%	25	11.8%

Table 3. Number and percentage of schools enrolling newcomers by newcomer count and concentration.

	State 1		State 2	
	Number of schools	Percentage of schools	Number of schools	Percentage of schools
<u>Newcomer Count</u>				
0 newcomers	496	50.9%	662	46.8%
1 newcomer	102	10.4%	162	11.5%
2-10 newcomers	297	30.5%	422	29.8%
11-50 newcomers	72	7.4%	156	11.0%
>50 newcomers	8	0.8%	13	0.9%
<u>Newcomer Concentration</u>				
0% newcomers	496	50.9%	662	46.8%
>0%-1% newcomers	356	36.5%	428	30.3%
>1-2% newcomer	76	7.8%	174	12.3%
>2% newcomers	47	4.8%	151	10.7%

Table 4. Newcomer count and newcomer concentration in schools that newcomer students attend.

	State 1		State 2	
	Number of Newcomers in schools with this profile	Percentage of Newcomers in schools with this profile	Number of Newcomers in schools with this profile	Percentage of Newcomers in schools with this profile
<u>Newcomer count</u>				
1 newcomer	102	3.0%	162	2.7%
2-10 newcomers	1,280	37.2%	1,840	30.2%
11-50 newcomers	1,263	36.6%	3,169	54.3%
>50 newcomers	802	23.3%	924	15.2%
<u>Newcomer concentration</u>				
>0%-1% newcomers	1,150	33.4%	1,121	18.4%
>1-2% newcomer	953	27.6%	1,507	24.7%
>2% newcomers	1,344	39.0%	3,467	56.9%

Table 5. Newcomer dissimilarity indices.

	Across Districts		Within Districts					
	State 1	State 2	State 1			State 2		
			No. of districts	Mean (SD)	Median	No. of districts	Mean (SD)	Median
Newcomers	0.35	0.24	46	0.31 (0.31)	0.27	115	0.33 (0.21)	0.31



Table 6. Median school characteristics for newcomers and other student groups.

	State 1						State 2					
	Median school % EL	Median school % same home language	Median school % econ. dis.	Median school % proficient in ELA	Median school % proficient in math	Median district size	Median school % EL	Median school % same home language	Median school % econ. dis.	Median school % proficient in ELA	Median school % proficient in math	Median district enrollment
Newcomer	13.1%	3.0%	55.4%	33.6%	34.3%	Large	14.2%	2.0%	58.2%	52.9%	37.7%	Medium
OEL	18.0%	12.1%	63.5%	33.2%	33.8%	Large	25.4%	17.0%	78.8%	43.4%	32.7%	Small
Non-EL Newcomer	4.7%	-	38.3%	41.1%	37.5%	Medium	6.3%	-	39.5%	64.5%	49.4%	Medium
OEP	2.2%	-	30.7%	45.3%	47.1%	Large	4.0%	-	50.0%	56.3%	40.5%	Small

Table 7. Distribution of newcomer subgroups.

	State 1					State 2				
	Number of students in subgroup	% of districts serving subgroup	% of schools serving subgroup	Median newcomer count in schools serving subgroup	Median newcomer concentration in schools serving subgroup	Number of students in subgroup	% of districts serving subgroup	% of schools serving subgroup	Median newcomer count in schools serving subgroup	Median newcomer concentration in schools serving subgroup
Language subgroups										
Spanish	1,643	27.4%	41.8%	9	1.2%	2,566	45.0%	36.9%	13	1.9%
Arabic	343	8.9%	7.9%	43	5.4%	570	10.9%	11.3%	18	2.4%
Somali	224	4.8%	3.0%	106	16.8%	259	8.1%	5.7%	19	3.3%
Portuguese	203	8.9%	9.6%	13	1.4%	-	-	-	-	-
Swahili	142	4.8%	4.3%	87	12.7%	-	-	-	-	-
Chinese	-	-	-	-	-	315	19.4%	10.4%	12	1.5%
Vietnamese	-	-	-	-	-	256	9.0%	7.0%	20	2.3%
Refugee students	804	6.8%	7.1%	93	16.2%	-	-	-	-	-
Unaccompanied minors	42	6.2%	2.6%	13	1.3%	-	-	-	-	-
SIFE	-	-	-	-	-	542	15.6%	8.5%	24	1.9%
Migrant students	75	7.5%	3.4%	5	0.9%	763	26.1%	16.7%	11	1.7%
Econ. disadv.	2,606	26.0%	40.4%	16	1.9%	3,969	47.4%	45.6%	15	2.0%
Not econ. disadv.	841	20.5%	29.7%	9	1.0%	1,458	32.7%	23.9%	18	2.7%

Table 8. Newcomer subgroup dissimilarity indices.

	Across Districts		Within Districts					
	State 1	State 2	State 1			State 2		
			No. of districts	Mean (SD)	Median	No. of districts	Mean (SD)	Median
Language subgroups								
Spanish	0.28	0.18	40	0.16 (0.17)	0.10	100	0.41 (0.22)	0.39
Arabic	0.67	0.46	13	0.59 (0.34)	0.67	23	0.63 (0.28)	0.69
Somali	0.72	0.41	7	0.71 (0.36)	0.81	18	0.56 (0.30)	0.66
Portuguese	0.36	-	13	0.75 (0.22)	0.82	-	-	-
Swahili	0.65	-	7	0.71 (0.32)	0.84	-	-	-
Chinese	-	0.33	-	-	-	46	0.64 (0.22)	0.68
Vietnamese	-	0.40	-	-	-	19	0.63 (0.25)	0.63
Refugee students	0.77	-	10	0.69 (0.31)	0.76	-	-	-
Unaccompanied minors	0.53	-	9	0.82 (0.17)	0.84	-	-	-
SIFE	-	0.64	-	-	-	34	0.57 (0.25)	0.58
Migrant students	0.83	0.50	11	0.80 (0.17)	0.84	54	0.51 (0.25)	0.49
Econ. disadvantaged	0.48	0.20	38	0.37 (0.32)	0.40	101	0.39 (0.22)	0.33

Table 9. Median school characteristics for newcomer subgroups.

	State 1						State 2					
	Median school % EL	Median school % same home language	Median school % econ. dis.	Median school % proficient in ELA	Median school % proficient in math	Median district size	Median school % EL	Median school % same home language	Median school % econ. dis.	Median school % proficient in ELA	Median school % proficient in math	Median district enrollment
Language subgroups												
Spanish	9.8%	8.2%	50.8%	38.4%	37.1%	Large	16.6%	13.1%	60.0%	50.0%	34.1%	Medium
Arabic	37.5%	1.9%	85.0%	19.2%	22.9%	Large	14.7%	1.3%	55.6%	53.1%	42.1%	Large
Somali	42.1%	4.8%	89.8%	18.7%	20.9%	Large	21.8%	1.1%	97.3%	43.2%	25.1%	Small
Portuguese	7.0%	0.3%	35.8%	48.2%	53.3%	Large	-	-	-	-	-	-
Swahili	38.9%	1.5%	85.0%	27.0%	25.6%	Large	-	-	-	-	-	-
Chinese	-	-	-	-	-	-	7.5%	0.7%	33.7%	71.1%	56.0%	Medium
Vietnamese	-	-	-	-	-	-	11.8%	1.1%	59.5%	51.9%	34.5%	Medium
Refugee students	41.5%	2.9%	89.6%	19.0%	22.3%	Large	-	-	-	-	-	-
Unaccompanied minors	13.1%	11.1%	63.2%	29.3%	24.2%	Medium	-	-	-	-	-	-
SIFE	-	-	-	-	-	-	7.6%	1.6%	45.7%	58.3%	44.1%	Large
Migrant students	5.2%	5.0%	47.2%	39.9%	38.0%	Large	23.8%	17.9%	80.4%	45.4%	31.9%	Small
Econ. disadv.	16.4%	3.9%	63.5%	29.3%	30.2%	Large	16.8%	2.7%	69.3%	48.8%	34.8%	Medium
Not econ. disadv.	5.7%	0.9%	30.3%	46.0%	47.7%	Large	10.2%	0.8%	34.2%	67.5%	59.6%	Medium